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Development of a two-stage assessment of student learning outcomes in DoGGS

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2023-2024 Mini-Assessment Grant: Development of a two-stage assessment of student learning outcomes in DoGGS

Program level grant report

Project description

This project focused on building an assessment instrument (survey) to ensure that the Department of Geography, GIS, & Sustainability is meeting its learning outcomes. Over the long-term, we hope to understand the following using this assessment tool:

1. How do students describe their self-efficacy, perception of teaching, and experiential learning opportunities in their sophomore year when it comes to the above learning outcomes?
2. How do students describe their self-efficacy, perception of teaching, and experiential learning opportunities in their senior year when it comes to the above learning outcomes?
3. Do our students' responses to questions that measure the above questions show that we are meeting or exceeding our own expectations when it comes to our program-level learning outcomes?
4. Are our students leaving UNC with the skills described in the Institutional Learning Outcomes, including Mastering Foundational Skills, Strengthening Interactions with Others, Connecting Ideas and Experiences, and Developing Professional Competence?

Using a literature review, along with existing survey instruments from other departments (primarily Economics), I built a survey instrument designed to ensure that students in our program have the requisite learning opportunities over the course of the program, including developing effective communication skills, generating and using data, using discipline-appropriate perspectives, engaging with information and data, and applying discipline-appropriate concepts and theories. I developed a mixed-methods tool that focuses on collecting longitudinal, quantitative data about these learning outcomes. I compiled and edited this survey over the summer and fall of 2023, and used cognitive interviews in the winter of 2023 to test the wording, order, and efficacy of the survey.

In conducting cognitive interviews with four students, I was able to make substantive edits to the survey for clarity. They also spoke approvingly of some of the questions we now include about belonging and identity, and indicated that these were important questions to ask. The survey now meets the three standards (accessibility, accurate measurement, and minimal time burden) that I set out to meet in the original grant. The survey is properly formatted in Qualtrics and can be distributed via Canvas at the end of the spring 2024 semester to students in ENST/GEOG 270: Professional Development and ENST/GEOG 491: Senior Capstone.

Outcomes

While the two-stage assessment has not yet been implemented (it will be implemented for the first time at the end of Spring 2024), there are several outcomes so far:

1. Streamlined data collection on alignment of student perceptions of learning outcomes with departmental learning outcomes
2. Positive initial reception from students involved in cognitive interviews
3. Assessment tool available for reference by other departments

Outcome (1) is particularly valuable for several reasons. While we used various assessment tools to allow students to review their education in our department, they were fragmented, inconsistently administered, and did not conform or align to understanding the efficacy of our departmental learning outcomes. We now have a singular assessment tool that will be administered in two stages during students' experiences in our department, meaning that we will have comparable, longitudinal data that can help us better prepare students and help them achieve our learning outcomes.

Outcome (2) demonstrates that this assessment tool is neither cognitively burdensome, nor that it feels too repetitious. While students involved in cognitive interviews dedicated 15-30 minutes of their time, they noted that the survey had good questions (quantitative and qualitative) that would allow them to reflect on various experiences in their time in the department, and that would allow them to provide constructive criticism and feedback. They particularly appreciated the questions that address belonging and identity in our department.

Finally, Outcome (3) has been requested by Dean Doerner; Economics initially made their assessment tool available to us to use, and we will subsequently make this tool available to our College. While other departments have different learning outcomes, this assessment tool can be used as a starting point (or disregarded!) for other departments as they choose.

Results implementation

While we do not yet have results from the assessment tool to improve upon our pedagogy and learning outcomes, the questions on the assessment tool directly correspond to departmental learning outcomes, and will therefore be used to inform our teaching at a departmental level. We will take time at our fall "kickoff" meeting to review and reflect on the initial results from Spring 2024. We will likely not immediately create major changes in our teaching, as results from only one year of implementation do not necessarily reflect broader trends. Over time, however, we will utilize results from this assessment tool to inform our teaching and outreach, and ensure that our students' experiences reflect our learning outcomes.